

**Remarks/Arguments**

The revised abstract is enclosed. The priority benefit paragraph on page 1.

Claims 1 to 14 have been canceled. New claims 15, 16, 17, 18, 19, 20, 21, 22 are based upon the original claims and page 4, line 21, to page 6, line 29, page 1, lines 29 to 36, page 2, lines 9 to 11 and 32 to 37, and page 3, lines 1 to 5 and 16 to 26.

The abstract of the disclosures has been objected to because the abstract is not written in narrative form, it is written like claim language.

The Office Action stated that correction is required. An amendment abstract has been supplied.

This objection should be withdrawn.

The Office Action stated: that the following guidelines illustrate the preferred layout for the specification of a utility approach; and that these guidelines are suggested for the applicant's use.

The Office Action stated: that as provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order; that each of the lectured items should appear in upper case without underlining or bold, as a section heading; and that, if no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.

- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e) and MPEP 608.05. Computer program listings (37 CFR 1.96(c), "Sequence Listings" (37 CFR 1.821 (c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 2.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure has been objected to because of the following informalities: the arrangement of the specification must conform to the arrangement and headings shown above. Applicants traverse this objection.

The Examiner is clearly incorrect. The specification does not have to have the above-mentioned arrangement and headings. The Examiner does not have any basis for using the word "must." The rule uses the non-mandatory word "should" and the Office Action even used the word "suggested."

When something is mandatory, the Rules use the word "must," for example, Rule 75(a) states: "The specification must conclude with a claim...." [Emphasis supplied]

Please note that the preliminary amendment, filed on July 31, 2003, inserted the customary headings into the specification.

The Office Action stated: that, also, the first sentence after the title must be a sentence in which the priority to related cases is claimed; and that appropriate correction is required. The priority benefit paragraph has been supplied.

This objection should be withdrawn.

Claim 1 has been objected to because of the following informalities: the phrase "characterized in that" on line 2 should be deleted because it does not add any limitation to the claim, and at the same time tend to render the claim confusing.

The Office Action stated that appropriate correction is required. New Claims 15 to 22 do not use such phrases.

This objection should be withdrawn.

Claims 1 to 14 have been rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicants traverse this rejection.

The Office Action stated: that the limitation that the packaging material has a "hologram-like" image, but does not have a hologram as not described in the specification in a way that would enable one skilled in the art to make the packaging material; and that it is not understood what is considered a hologram-like image, but is not a hologram. Applicants traverse this statement.

Attention is drawn to new Claim 15 that describes the structure by which applicants' claimed tube packaging laminate includes a metal foil with its surface embossed with a grid or a repeating pattern with a transparent multilayer plastic layer thereon. The embossed design of the metal foil is visible through the transparent multilayered plastic layers giving a visual effect similar to a hologram. The specification fully enables Claims 15 to 22. Support for applicants' composition, structure, etc., that provides a visual effect similar to a hologram is found on page 1, lines 19 to 24, page 2, lines 5 to 15 and 32 to 37, page 5, lines 25 and 26, and page 6, lines 5 to 9 and 16 to 21. See also Figure 1.

Page 6, lines 19 to 21, states:

"The metallic brightness and the reflection of the metal foil 10, and thereby in particular the reflection influenced by the embossing, lead to

optical effects which can be best compared with the visual impressions achieved by holograms.”

This rejection should be withdrawn.

Claims 1 to 14 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

The Office Action stated: that regarding Claims 1 to 14, the use of reference characters to the drawings in claim language is allowed but discouraged because the claims must be determinable to the scope of the invention claimed without reference to the drawings; and that, additionally, only one reference number is allowed to designate a specific limitation of the invention. The reference numbers have to be removed from the claims.

The Office Action stated: that, regarding Claim 1, the limitation in the preamble that the packaging material has a “hologram-like image” renders the claim and vague and indefinite because it is not understood what the scope of the definition of hologram-like is, additionally the negative limitation “with the proviso that holograms in the packaging materials are excluded” is contradictory to the limitation in the preamble; that hologram-like image would only completely comprise a hologram in scope and yet in the same claim holograms are excluded from the scope of the claim; and that clarification is required. Applicants believe that new Claims 15 to 22 eliminate these problems.

The Office Action stated: that, additionally Claim 1 the contradictory limitations of “embossed metal foil or metallized plastic film” in lines 4 and 5 and

the limitation “embossed image on the metal foil of metallized plastic film” render the claim vague and indefinite because it is not understood if the packaging material comprises a metal foil or metallized plastic film alone or combines as one layer or combined as two separate layers; and that clarification is required.

Applicants believe that new Claims 15 to 22 eliminate this problem.

The Office Action stated: that Claim 2 recites the limitation “functional layers” in line 3; that there is insufficient antecedent basis for this limitation in the claim, because the claim recites the phrase “characterized in that,” which entails a further description of a previous claim, but the functional layers were never described in the previous claim; and that it is suggested by the Examiner to change “characterized in that” to “further comprising” in order to provide sufficient antecedent basis for this limitation. The new claims eliminate the antecedent basis matter.

The Office Action stated: that a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired; note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by “such as,” or in this instance “in particular” and then narrow language; that the Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a

required feature of the claims; note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949); and that, in the present instance, Claims 3 to 6 recite the broad recitation metal foil, and the claim also recites aluminum foil, which is the narrower statement of the range/limitation. The new claims eliminate this problem.

The Office Action stated: that a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired; note the explanation given by the Board of patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as", or in this instance "in particular," and then narrow language; that the Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims; note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 85 USPQ 481 (Bd. App. 1949); and that, in the present instance, Claims 4 to 6 recite the broad recitation polyolefin, and the claim also recites polyethylene, which is the narrower statement of the range/limitation. New Claims 15 to 22 do not suffer from this problem.

The Office Action stated: that Claims 5 to 7 recites the limitation “functional layer”; and that there is insufficient antecedent basis for this limitation in the claim, because the claim recites the phrase “characterized in that,” which entails a further description of a previous claim, but the functional layers were never described in the previous claim. Such phrase is not included in the new claims.

The Office Action stated: that regarding Claim 9, the limitation “preferably” for tubes renders the claim vague and indefinite because it is not understood if the tube is the only embodiment claimed or if it is just one of the many shapes or articles that comprise a packaging material according to Claim 1; that, additionally, the limitation “containing or comprising” is confusing because it is not understood what the difference in the two limitations are and how the packaging material can be either comprised or contained in the articles listed; and that for examining purposes “containing” is taken as open language like “comprising.” The new claims are believed to eliminate these problems.

The Office Action stated: that, regarding Claims 8 and 11 to 14, the limitation that the polyolefin of the multi-layer plastic layer “features” a printed image on one or both sides renders the claim vague and indefinite because it is not understood how a layer “features” an image, or if limitation is referring to a process limitation; and that the Examiner suggests changing the “characterized in that” language to “further comprising a printed image on one or both sides of the polyolefin layer of the multi-layer plastic layer”. The new claims eliminate this problem.

This rejection should be withdrawn.



Claims 1 to 3, 5 and 8 to 14 have been rejected under 35 U.S.C. 102(b) as being anticipated by Boswell '678 (U.S. Patent No. 5,643,678). Applicants traverse this rejection.

As stated in Chisum, Donald S., "Patents", (Ref. 37-2/91), at page 3-6.1, "The standard for lack of novelty, that is, 'anticipation', is one of strict identity." Under Section 102(b) the burden of proof is upon the Examiner and the Examiner has not carried his burden in the case at bar. Ex parte Levy, 17 USPQ 2d 1461, (BPAI 1991), states:

"..., the initial burden of establishing s *prima facie* basis to deny patentability to a claimed invention rests upon the examiner." [Emphasis supplied] [Pages 1463 and 1464]

Applicants' claimed invention was made to produce low cost tube material having a precious look. Holograms give to the public a great deal of trust in a product, however holograms are costly. To add a hologram to a throw-away item such as a tooth paste tube or the like may be wanted by the consumer, but the consumer is not willing to pay such add-costs. Therefore, it was applicants' intention to develop a material having at least parts of the surface showing the appearance of a hologram but where no costly hologram technique had to be used to produce the look-a-like surface.

Boswell '678 is not a very relevant reference. Boswell '678 clearly discloses a hologram. The embossings are in three layers E, F and D. The metal layer E is a vacuum deposited layer having a thickness of 20 to 100 milimicrons. layer F is a montan wax and D is soft lacquer.

Applicants' claimed invention avoids all the process steps to get to a hologram. The instant laminate contains no hologram. The metal layer is a fully or partially embossed metal foil, having a thickness of for example 7 to 100 micrometers. The metal layer is embossed before it is incorporated in the invention composite and the results a composition that is structurally different from that of that is structurally different from that of Boswell '678. Applicants' claimed composition cannot be achieved by the preparation process of Boswell '678. No montan wax layer is disclosed.

The abstract of Boswell '678 states: "A foil/composite sheet having a holographic image or diffraction grating image...holographic image.....holographic image...."

The final composite sheet at Boswell '678 is intended for use as a valuable material for security purposes and is not intended for use as a laminate to produce a throw away item as a tube for toothpaste or any other pasty product for daily use.

The Office Action stated that Boswell '678 anticipates a foil/composite sheet with a diffraction grating image, which is not a hologram (see abstract). Applicants traverse this statement. Boswell '678 does not anticipate applicants' claimed invention. The surface of Boswell '678's layer F away from metal layer E is not plane – instead it is nonplane having the same wave shape as the embossing of metal layer E. Neither layer 11 (b<sub>1</sub>) or 12 [inner layer of functional layer (a)] of applicants' claimed invention is montan wax or microcrystalline wax or other wax based material.

The Office Action stated that the limitation that the foil may be a “covering” or “wrapping” foil in claim 9 is an intended use of the foil, and therefore is given little patentable weight. Applicants traverse this statement. The goods, e.g., covering foil, etc., are positively claimed – there is no “may be”.

The Office Action stated: that the sheet comprises a plastic carrier made up of polyethylene in a thickness of 12 to 50 micrometers (col. 4, lines 17 to 23); that on the inner side of the plastic carrier are two lacquer coatings each with a thickness of 0.5 to 5 micrometers, which is similar to 3 to 80 g/m<sup>2</sup> (col. 4, lines 31 to 34); that on the inner side of the lacquer layers is a metal layer made up of aluminum with a thickness of 20 to 100 nanometers and embossment receiving coating, metal layer and soft lacquer layer, which make up an embossed metallized plastic film (col. 5, lines 36 to 40); that the composite sheet is adhered to a film comprising polyethylene or polypropylene (col. 9, lines 28 to 40), by an adhesive coating that is placed for its adherence to the polyethylene or polypropylene; that primary printing information facing upward if it is desired to have the security hologram affixed to the primary viewing surface, therefore the polyethylene layer of the multi-layered plastic has a printed image on one side of the layer (col. 9, lines 33 to 40). Boswell '678 does not anticipate applicants' claimed invention. There are structural differences.

Applicants use a metal foil that is embossed before it is put into the composite. The result is that the outer surface of each of both layers next to the metal foil is plane. Support for this claim limitation is seen in Figure 1. Boswell '678 embosses its composite after flat metal layer E is made part of its composite.

The embossing causes both sides of metal foil E to have a wave shape, both sides of layer F to have a wave shape, etc. Hence, lack of anticipation.

The Office Action stated, note, the recitation that the composite sheet defined in the claims is a packaging material with hologram-like image has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. Applicants traverse this statement. Applicants' Claim 15 starts "A tube packaging laminate ...", which is a structural limitation.

The Examiner has not produced a sustainable or prima facie showing of anticipation supported by facts in the record. Hence, the anticipation rejection is flawed. Boswell '678 does not teach all of the elements of the appellants' claimed invention, as arranged in the claim.

This rejection should be withdrawn.

Claims 6, 7, 13 and 14 have been rejected under 35 U.S.C. 103(a) as being unpatenable over Boswell '678 (U.S. Patent No. 5,643,678) in view of Sander (U.S. Patent No. 4,629,647). Applicants traverse this rejection.

The Examiner has not followed the requirements of the Graham decision so this and the other obviousness rejection are defective.

The Office Action stated: that Boswell '678 teaches all that is claimed in Claim 1 and further comprising a functional layer comprising polyethylene (col. 9, lines 6 to 13) and an adhesive chosen to adhere to the polyethylene (col. 6, lines 6

to 13); that the mulit-layered plastic film comprises a lacquer coating and a film containing polyethylene, as described above in the thickness values described above; and that Boswell '678 fails to explicitly teach the adhesive layer for the functional layer comprising lacquer and the specific thickness values of the individual layers, Applicants traverse this statement. As shown above, Boswell '678 does not teach or suggest applicants' claimed invention.

The Examiner has not shown the necessary motivation for one ordinarily skilled in the art to combine Boswell '678 and Sander in the quest for applicants' claimed invention. Even if the two rejection references are combined, the result is still not applicants' invention. The arrangement/structure of Boswell '678 is one of the essential part of its invention which cannot be changed without destroying its invention.

The Office Action stated: that, however, it is notoriously well know in the art that a lacquer coating is an adhesive that bonds polyethylene to a metal substrate, as taught by Sander in columns 6 and 7; and that Boswell '678 teaches that the adhesive is chosen depending on the adherence to the functional layer, which in this case is polyethylene. The result is still not applicants' claimed invention, or suggestive thereof.

Sander discloses a foil for signing areas on credit cards or the like but does not describe a laminate for tubes. Embossed is layer 3a consisting of a lacquer and the aluminum layer is deposited by vacuum deposition on said layer 3a. In the claimed invention, the step is completely different. The metallic foil is

embossed and the plastic is laid down on the surface of the embossed metallic foil.

The initial burden of presenting a prima facie case of obviousness rests on the Examiner. In re Oetiker, 24 USPQ2d 1443, 1444, (CAFC 1992). In determining whether an invention is obvious, the Examiner must consider: (1) the scope and content of the prior art; (2) the differences between the prior art and the claimed invention; (3) the level of ordinary skill in the art; and (4) any objective considerations that may be present. Graham v. John Deere Co., 148 USPQ 459. 466 to 467, (Sp.Ct. 1966). "Where an obviousness determination is based upon a combination of prior art references, there must be some teaching, suggestion or incentive supporting the combination." In re Geiger, 2 USPQ2d 1276, 1278, (CAFC 1987). The Examiner has not carried his burden of proof.

The Office Action stated: that it would have been obvious to one having ordinary skill in the art at the time the applicant's invention was made to use a lacquer as the adhesive bonding the composite sheet to the functional layer, because of its known adherence and protective properties, taught by Sander, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice, absent the showing of unexpected result; and that; additionally, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select ranges for the thickness values of the individual layers of the film, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or

workable ranges involves only routine skill in the art, absent the showing of unexpected result. Applicants traverse this statement. Its description of the law is incorrect. Section 103(a) uses one ordinarily skilled in the art, not “the general skill of a worker in the art”, whatever that means. The use of so-called matter of obvious design choice is meaningless under the required factual inquires of the Graham decision. The Examiner also has not factually established in the record the required motivation.

In order to prevent the impermissible use of hindsight, “the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cite prior art references for combination in the manner claimed.” [Emphasis Supplied] It is not sufficient for the Examiner to rely on “obvious design choice”, and other erroneous sayings, to provide the motivation for combining the teachings of the cited references. See id. Rather the Examiner must explain “what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination.” id.

In the present case, the Examiner has merely identified where in the prior art the individual components of the claimed invention are supposedly taught and then incorrectly relied on his own explanation as to why it would have been obvious to have combined these components to achieve the claimed invention. See *Ecolochem, Inc. v. Southern California*, 56 USPQ2d, (CAFC 2000) [quoting *In re Kotzab*, 55 USPQ2d 1313, 1317, (CAFC 2000)] (“[A] rejection cannot be predicated on the mere identification...of individual components of claimed

limitations.”) At best, the Examiner has established that it might be “obvious to try”, which of course is of no importance under Section 103(a). See *In re Merck & Co., Inc.*, 2331 USPQ 375, 379, (CAFC 1986).

The Examiner does not make reference to any teaching in the prior art which supports the Examiner’s conclusion of obviousness. Reliance on “common knowledge and/or common sense” does not fulfill the requirement to provide reasons to support in findings of obviousness. *In re Thrift*, 63 USPQ2d 2002, 2006, (CAFC 2002) [quoting *In re Lee*, 61 USPQ2d 1430, 1435, (CAFC 2002)].

This rejection should be withdrawn.

Claim 4 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Boswell ‘678 (U.S. Patent No. 5,643,678) in view of Curiel (U.S. Patent No. 6,164,548). Applicants traverse this statement.

The Office Action stated that Boswell ‘678 teaches all that is claimed in Claim 1 and that the multi-layered plastic film comprises polyethylene, but fails to explicitly teach that the multi-layered plastic film further comprises a melt extrudate of polyethylene in order to bond the polyethylene to the metal foil. Applicants traverse this statement. As shown above, Boswell ‘678 does not teach or suggest any of applicants’ claims. Curiel does not cure the defects in the search for applicants’ claimed invention.

Curiel clearly discloses a hologram on informational articles. A hologram is formed in a metal foil. The claimed invention does not provide a hologram. It only describes a mere embossing process in a metal foil.



The Office Action stated: that, however, Curiel teaches that when forming a tamper-resistant article comprising a metal core and resinous plastic material composed of polyethylene bonded to it, then the polyethylene is extruded onto the metal core (see abstract); that one of ordinary skill in the art would have recognized that when polyethylene is extruded onto a surface a melt extrudate of polyethylene is going to be formed between the resin and the substrate; and that the polyethylene is extruded onto the metal core, because extrusion provides a preferred bond between the metal and polyethylene (col. 2, lines 53 to 59), as taught by Curiel. Applicants traverse this statement. The Examiner has indulged in speculation, but Section 103(a) requires facts.

The Office Action stated that, therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to bond the polyethylene and metal core by extrusion, which would obviously have a layer of melt extrudate of polyethylene between the polyethylene and metal core rather than adhering using lacquer, because extrusion provides a strong bond between the metal and polyethylene, as taught by Curiel. Applicants traverse this statement.

The Examiner has not provided the necessary motivation to combine the two rejection references.

This rejection should be withdrawn.

Reconsideration, reexamination and allowance of the claims are requested.

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Respectfully submitted,

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